

What is claimed is:

1. An exhaust gas purifying system provided with a NO_x occlusion reduction type catalyst having a catalyst metal and a NO_x occluding substance in an exhaust passage of an engine and a control unit comprising a normal control operation means, a regeneration control initiation judging means for detecting a regeneration control initiation timing for said NO_x occlusion reduction type catalyst, and a rich-burn control operation means capable of lowering the concentration of oxygen in the exhaust gas,

wherein: said rich-burn control operation means executes the rich-burn control operation for generating an exhaust gas which is in a fuel-rich state by recirculating EGR gas and said control unit comprises a catalyst activation control operation means for executing a control operation for activating said catalyst metal immediately before performing said rich-burn control operation.

2. The exhaust gas purifying system of claim 1,
wherein: said catalyst activation control operation means performs a burning control operation in the nearly stoichiometric air/fuel ratio and performs a multi-stage injection and an early injection in the fuel injection into the cylinder.

3. The exhaust gas purifying system of claim 1 or 2,
wherein: said NO_x occlusion reduction type catalyst comprises a reducer occluding substance.

4. The exhaust gas purifying system of claim 1 or 2,
wherein: said catalyst activation control operation means performs a burning control operation in the nearly stoichiometric air/fuel ratio and controls the torque generated by the engine by controlling the intake air into the engine.

5. The exhaust gas purifying system of claim 1 or 2,
wherein: said rich-burn control operation means recirculates EGR gas for generating an exhaust gas which is in a fuel-rich state and controls the torque

generated by the engine by controlling the intake air into the engine.

6. A method of exhaust gas purification to be carried out with use of an exhaust gas purifying system provided with a NOx occlusion reduction type catalyst having a catalyst metal and a NOx occluding substance in an exhaust passage of an engine and a control unit comprising a normal control operation means, a regeneration control initiation judging means for detecting a regeneration control initiation timing for said NOx occlusion reduction type catalyst, a catalyst activation control operation means and a rich-burn control operation means capable of lowering the concentration of oxygen in exhaust gas, which comprises performing a catalyst activation control operation by said catalyst activation control operation means when it is judged by said regeneration control initiation judging means that a regeneration control for the regeneration of the NOx occlusion reduction type catalyst is to be initiated and thereafter executing a rich-burn control operation accompanying a recirculation of EGR gas by said rich-burn control operation means to thereby regenerate said NOx occlusion reduction type catalyst.

7. The method of exhaust gas purification of claim 6, which comprises performing a burning control operation in the nearly stoichiometric air/fuel ratio and performing the fuel injection into the cylinder through a multi-stage injection and an early injection, by said catalyst activation control operation.

8. The method of exhaust gas purification of claim 6 or 7, wherein: said NOx occlusion reduction type catalyst comprises a reducer occluding substance.

9. The method of exhaust gas purification of claim 6 or 7, which comprises performing said catalyst activation control operation to control the torque generated by the engine by controlling the intake air into the engine,

while performing a burning control operation in the nearly stoichiometric air/fuel ratio.

10. The method of exhaust gas purification of claim 6 and 7, which comprises performing said rich-burn control operation to recirculate EGR gas to generate an exhaust gas which is in a fuel-rich state and to control the torque generated by the engine by controlling the intake air into the engine.